

DOCKET NO.: 217717US0

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: :
Yasuhiro DOI et al : GROUP ART UNIT: 1615
SERIAL NO.: 10/026,641 : EXAMINER: J. Venkat
FILED: December 27, 2001 :
FOR: HAIR COSMETIC COMPOSITIONS

DECLARATION UNDER 37 C.F.R. §1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VA. 222313

SIR:

Now comes Yasuhiro Doi who deposes says that:

1) I am one of the inventors of the subject matter disclosed and claimed in the above-identified application.

2) In 1990 I graduated from the graduate course of engineering of Shinshu University with a Master's degree in engineering.

3) Since 1990 I have been employed by the Kao Corp., and, since 1994, employed as a researcher in the Performance Chemicals Research Labs of Kao Corp., I have been engaged in the research and development of base chemicals for use in the formulation of shampoos and hair conditioners.

4) I have read the specification of the above-identified application.

5) I have read the outstanding Official Action of the application and each of the references cited in the action.

6) That in order to demonstrate that the quaternary ammonium cationic surfactant of formula (1) of the present invention, as a result of possessing an-O-(CH₂)₃- group between the

quaternized nitrogen and group R', provides a superior hair cosmetic composition than a directly comparable composition within the scope of the cited and applied JP '928 document in which the cationic quaternary ammonium surfactant contains an oxyethylene $(OC_2H_4)_{1.2}$ group between the quaternized nitrogen and group R', the following comparative evidence is prepared.

Example 1 of the JP '928 document contains a cationic surfactant of the formula $R(OC_2H_4)_n-N(CH_3)_3 \cdot X$, wherein n is a mean value of 4. In the following comparison in which a composition within the scope of the reference was prepared that contains the cationic surfactant of the reference, essentially the same cationic surfactant as that of Example 1 of the reference was used except that subscript n of the quaternary ammonium salt had a mean value of 3.2.

The table immediately following shows the compositions of two hair cosmetic formulations, one within the scope of the invention that uses cationic surfactant 3 whose formula is described in Table 1 on page 17 of the specification, and the other composition, within the scope of the '928 reference, contains the cationic surfactant described in the previous paragraph. The results of the flexibility and smoothness tests on treated hair are presented in the table as the procedure for determining such is presented on page 18 of the text of the present specification.

		Invention Product	Comparative Product
Ether type cationic surfactant 3		1.5	
Ethylene Oxide-adduct type cationic surfactant			1.5
Cetanol*		4.5	4.5
pH regulator		q.s.	q.s.
Purified water		Balance	Balance
pH (diluted 20-fold with water, 25° C)		5.4	5.3
Wetted Hair	Flexibility	B	B
	Smoothness	A	C
Dried Hair	Flexibility	A	B
	Smoothness	A	C

* A 7/3 weight ratio mixture of cetyl alcohol and stearyl alcohol.

7) The comparative evidence presented in the table above clearly shows that the formulation within the scope of the present claims results in treated hair both when wet and after having been dried that exhibits superior flexibility and smoothness in comparison to hair treated with the formulation of the comparative product within the scope of JP '928. The results are believed to be of commercial significance

8) The undersigned petitioners declare further that all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

9) Further, deponent saith not.

Date: 11/14/03

Yasuhiro Doi
Yasuhiro Doi

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